

WHAT IS CLAIMED IS:

Sub
FS

1. A DNA segment encoding a human type α PDGF receptor protein.

Sub
FC1

2. A DNA segment according to claim 1, wherein said segment comprises genomic clone T11 or cDNA clone TR4.

3. A DNA segment, according to claim 1, wherein said protein has the amino acid sequence defined in Figure 3.

10 Sub
C2

4. A recombinant DNA molecule comprising a DNA segment according to claim 1 and a vector.

F

5. ^{An in vitro} A culture of cells transformed with a DNA segment according to claim 1.

15 Sub
C2

6. A method of producing a human type α PDGF receptor protein comprising culturing cells according to claim 5 under conditions such that said protein is produced and isolating said protein from said cells.

20

7. A human type α PDGF receptor protein having the amino acid sequence defined in Figure 3.

Mateu et al.

07/308,282

fd 2-9-89

435/6

8. An antibody specific for a protein having the amino acid sequence of a type α human PDGF receptor protein, according to claim 7.

5 9. An antibody according to claim 8, wherein said antibody is specific for only a type α PDGF receptor protein.

10 10. An antibody specific for a protein having the amino acid sequence of a type β human PDGF receptor protein, wherein said antibody is specific for only a type β human PDGF receptor protein.

11. A bioassay for expression of a type α PDGF receptor gene comprising the steps of:

- 15 i) contacting a biological sample suspected of containing RNA with a DNA probe comprising a DNA segment according to claim 1, under conditions such that a DNA:RNA hybrid molecule containing said DNA probe and complementary RNA is
- 20 formed; and
- ii) determining the amount of said DNA probe present in said hybrid molecules.

12. A bioassay for a type α PDGF
receptor antigen comprising the steps of:

- 5
- i) contacting a biological sample
suspected of containing
polypeptides with an antibody
according to claim 8, under
conditions such that a specific
complex of said antibody and said
antigen is formed; and
- 10
- ii) determining the amount of said
antibody in said complexes.

13. A bioassay for type β PDGF receptor
antigen comprising the steps of:

- 15
- i) contacting a biological sample
suspected of containing
polypeptides with an antibody
according to claim 10, under
conditions such that a specific
complex of said antibody and said
antigen is formed; and
- 20
- ii) determining the amount of said
antibody in said complexes.

add
C3/

revised AM
6/25/90

13. A bioassay for type β PDGF receptor antigen comprising the steps of:

- 5
- i) obtaining a biological sample containing polypeptides;
 - ii) reacting said sample with an antibody according to claim 10; and
 - iii) determining the amount said antibody bound by said polypeptides.

add F4
add L1
Add M³

Add N³